

# *Climate Change Fuel Cell Program*

## *1 Year Evaluation Form*

### General Information

<i>Contract Number</i> <b>DE-FG21-96MC33349</b>	<i>Applicant Name</i> <b>Hamilton Sundstrand</b>	<i>Fuel Cell Type</i> <b>PC25A (Phosphoric acid)</b>	<i>Manufacturer</i> <b>DE-Itl' Fuel Cells - UTC</b>
<i>Amount of the Award</i> <b>200k</b>	<i>Building Application</i> <b>PRIMARY – NON GRID CONNECTED</b>	<i>Thermal Application</i> <b>NONE</b>	<i>kWSize</i> <b>200kw</b>
<i>Thermal Utilization</i> <b>NONE</b>	<i>Grid Independent?</i> <b>NO</b>	<i>Number of Units</i> <b>1</b>	

### Energy Savings

<i>Electrical Savings</i> <b>NONE</b>	<i>Thermal Savings</i> <b>NONE</b>	<i>Natural Gas Cost (if applicable)</i> <b>\$8100/MTH AVG – 10,300 CCF/MTH AVG.</b>
<i>Savings - Natural Gas</i> <b>NONE</b>		

### Contract Point of Contact Information

<i>Contract POC Name</i> <b>James G. Hogan</b>	<i>Address</i> <b>One Hamilton Road</b>	<i>City</i> <b>Windsor Locks</b>	<i>State/Country</i> <b>Ct.</b>	<i>Zip</i> <b>06096</b>
<i>Phone Number</i> <b>860-654-5635</b>	<i>Email</i> <b>james.hogan@hs.utc.com</b>			

### Site Information

<i>Site Name/Owner</i> <b>Same</b>	<i>Address</i>	<i>City</i>	<i>State/Country</i>	<i>Zip</i>
<i>Site POC/Manager</i>	<i>Site POC Phone Number</i>	<i>Site POC Email</i>		

### Performance Information

<i>Estimated Install/Acceptance Test Date</i> <b>12/19/1997</b>	<i>Operating Hours</i> <b>27,876 LOADED AS OF 7/19/01</b>	
<i>MWHRS</i> <b>140 AVG</b>		
<i>Electrical Efficiency</i> <b>UNKNOWN</b>	<i>Availability</i> <b>88% (12 MTH AVG.)</b>	<i>Length of Assessment</i>
<i>Mean Time Between Forced Outages</i> <b>ONLY ONE FORCED OUTAGE MAY OF 2000 FAILURE OF A PRESSURE TRANSMITTER</b>		

Please Send the Following Items to [Kimberly.Kuster-Smith@erdc.usace.army.mil](mailto:Kimberly.Kuster-Smith@erdc.usace.army.mil)

*Site Description(5-15 sentences)*

This plant serves as the primary power source for the Hamilton Sundstrand Data Center and Data Center UPS's. It is considered an ultra high reliable power source in that if an outage occurs it is backed up by the grid via transfer switch AND if the grid is unavailable, the load is transferred to a 500 kw generator.

*Other Text you may need...*

In March of 1997, funding was appropriated for one grid independent Phosphoric Acid Fuel Cell for serving the Hamilton Standard Data and Computing Center. The need for a reliable and clean power source was critical in that this center supports world wide operations. The manufacturer of this cell, ONSI Corporation – A Division of Hamilton Standard, assisted in the design and installation. The physical installation was completed in December of 1997, and the cell was put on-line in January of 1998.

This installation was endorsed, in part, as a means to provide a showplace demonstration of Hamilton Standards fuel cell technology and to provide a lessons learned opportunity for future improvements and system enhancements.

*Pictures*

*Fuel Cell Dedication Date*